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APPLICATION NO.	FILING DATE	FIRST NAMED NVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/090,672	06/04/1998	TETSUYOSHI ISHIWATA	766.21	4139	
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FITZPATRI	CK CELLA HARPER	EXAMINER			
30 ROCKEFELLER PLAZA NEW YORK, NY 10112			WOITACH, JOSEPH T		
			ART UNIT	PAPER NUMBER	
			1632		
			DATE MAILED: 03/13/2002	23	

Please find below and/or attached an Office communication concerning this application or proceeding.

			Application	Application No. Applicant(s)			
	Offi.	Andina Camanan	09/090,672		ISHIWATA ET AL.		
	Offic	Offic Action Summary	Examiner		Art Unit		
			Joseph Wo		1632		
Period fo		LING DATE of this communication app	pears on the d	cover sheet with the co	orrespondence ad	dress	
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status							
1)⊠	Responsive to communication(s) filed on 18 December 2001.						
2a)⊠							
3)	,						
Dispositi	on of Clai	·					
4)⊠ Claim(s) <u>1,4,5,18,19 and 22</u> is/are pending in the application.							
	4a) Of the above claim(s) is/are withdrawn from consideration.						
5) 🔲	Claim(s) is/are allowed.						
6)⊠	Claim(s)	1,4,5,18,19 and 22 is/are rejected.					
7)	Claim(s)	is/are objected to.					
8)□	Claim(s)	are subject to restriction and/o	or election red	quirement.			
	on Paper					•	
•	•	ication is objected to by the Examine					
10) 🔲 -		ng(s) filed on is/are: a)□ accep					
		may not request that any objection to the		<u> </u>			
11)[		sed drawing correction filed on		oroved b)  disappro	ved by the Examin	er.	
If approved, corrected drawings are required in reply to this Office action.							
12) The oath or declaration is objected to by the Examiner.							
Priority under 35 U.S.C. §§ 119 and 120							
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).							
a)l	a) All b) Some * c) None of:						
	1. Certified copies of the priority documents have been received.						
	2. Certified copies of the priority documents have been received in Application No						
<ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>							
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).							
a) ☐ The translation of the foreign language provisional application has been received.  15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.							
Attachment(s)							
1) Notice 2) Notice	e of Reference of Draftspe	ces Cited (PTO-892) erson's Patent Drawing Review (PTO-948) osure Statement(s) (PTO-1449) Paper No(s) <u>2</u>	? <u>1</u> .		(PTO-413) Paper No Patent Application (PT		

File

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**DETAILED ACTION** 

Please note that the Examiner of record and art unit has changed. The Examiner of record

is now Joseph T. Woitach and the group art unit is now 1632.

This application is a continuation in part of PCT/JP97//04468, filed December 5, 1997,

which claims benefit to foreign application HEI. 8-325763, filed December 5, 1996 in Japan.

Applicants' amendment filed December 18, 2001, paper number 22, has been received

and entered. It is noted that the marked-up version does not contain the underline text to indicate

the addition of the new recitations, however it does contain markings indicating the deleted

portions. Though this is not fully compliant, the unmarked version and the marked version

appear to be the same, and the unmarked version of the claims have been entered. Claims 2, 6

and 7 have been canceled. Claims 1, 4, 5, 18 and 19 have been amended. Claim 22 has been

added. Claims 1, 4, 5, 18, 19 and 22 are pending and currently under examination.

Claim Objections

Claim 4 is objected to because of the following informalities: Claim 4 recites step (a), (b)

and (d). It appears step (d) should be labeled step (c).

Claim 22 is objected to because of the following informalities: In claim 22, line 9, the

word continuous is misspelled 'continuos'.

Appropriate correction is required.

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Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

New Matter

The rejection of claims 4, 5, 18 and 19 under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. 37 CFR 1.118 (a) states that "No amendment shall introduce new matter into the disclosure of an application after the filing date of the application" as set forth in the previous office action is withdrawn.

Claim amendments have obviated the basis of the previous rejection.

In light of new claim amendments, claims 1, 4, 5, 18 and 19 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. 37 CFR 1.118 (a) states that "No amendment shall introduce new matter into the disclosure of an application after the filing date of the application".

In the instant case, the recitation of 'a nucleotide sequence having an identity of 60% or more' and 'or having an identity of 95 or more' is considered new matter. Upon review of the portions of the instant specification pointed to by Applicant supporting new amendments and of the entire specification, Examiner can not find literal support for the limitation of 'identity'. The closest support Examiner can find is at page 7, where examples of sequences which are 'homologous' and which can hybridize are set forth. Further, the specification provides support for isolated DNAs comprising a nucleotide sequence identical to contiguous 10 to 50 residues selected from the nucleotide sequences represented by SEQ ID NOs:1-6 and 9-12 in accordance with the teachings from the specification (e.g. p. 8, lines 1-4). However, 10 to 50 residues of identity would not constitute 60% or 95% identity over the entire length of the given SEQ ID NOs recited in the claim. The specification does <u>not</u> provide support for embodiments being limited to sequences which are 60 or 95% identical to SEQ ID NOs:1-6, 9-12, nor for the use of such embodiments as diagnostic or therapeutic agents. Claims 4, 5, 18 and 19 are included in the basis of the rejection because though they do not specifically recite the new matter, they are dependent on claim 1, and thus encompass the this embodiment. There is no evidence that Applicants envisioned or were in possession of the specific genus of products and methods of using such at the time of filing.

To the extent that the claimed compositions and/or methods are not described in the instant disclosure, claims 1, 4, 5, 18, and 19 are also rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a

way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention, since a disclosure cannot teach one to make or use something that has not been described. Applicant is reminded of the factors for determining enablement as set forth in *In re Wands* 858 F.2d 731, 8 USPQ2nd 1400 (Fed. Cir, 1988) factors for evaluating undue experimentation include the amount of direction or guidance presented.

MPEP 2163.06 notes "If new matter is added to the claims, the examiner should reject the claims under 35 U.S.C. 112, first paragraph - written description requirement. *In re Rasmussen*, 650 F.2d 1212, 211 USPQ 323 (CCPA 1981)." MPEP 2163.02 teaches that "Whenever the issue arises, the fundamental factual inquiry is whether a claim defines an invention that is clearly conveyed to those skilled in the art at the time the application was filed...If a claim is amended to include subject matter, limitations, or terminology not present in the application as filed, involving a departure from, addition to, or deletion from the disclosure of the application as filed, the examiner should conclude that the claimed subject matter is not described in that application. MPEP 2163.06 further notes "When an amendment is filed in reply to an objection or rejection based on 35 U.S.C. 112, first paragraph, a study of the entire application is often necessary to determine whether or not "new matter" is involved. *Applicant should therefore specifically point out the support for any amendments made to the disclosure*" (emphasis added).

Claims 1, 4, 5, and 7 stand rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for making and using isolated DNAs comprising the

nucleotide sequences set forth in SEQ ID NOs:1-6 and 9-12, does not reasonably provide enablement for the full scope of isolated DNAs hybridizing with said SEQ ID NOs, having 60% or 90% identity, or comprising a nucleotide sequence identical to any continuous 10 to 50 residues therefrom. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Applicants argue that since the claimed oligonucleotides are constituted by DNA, it is well known to one of ordinary skill in the art that one could easily produce DNA by use of a synthesizer. Further, the use of such oligonucleotides would be readily apparent for use in diagnostic or treatment. Applicants summarize a comparison of the ten sequences made of record in the rejection made under 35 USC 102, and argue that the probability where one 10 bp probe is continuously present in 1000 bp and detect a sequence unrelated to IgA nephropathy would be very low. See Applicants' arguments, pages 5-7. Applicants arguments have been fully considered, but not found persuasive.

As noted in the previous office action, the claimed invention is broadly drawn to compositions and methods comprising the use of isolated DNAs comprising the nucleotide sequences of SEQ ID NOs:1-6 and 9-12; isolated DNAs hybridizing to such, and isolated DNA comprising a nucleotide sequence identical to any continuous 10-50 residues therefrom.

Enablement is considered in view of the Wands factors (MPEP 2164.01(a)). The court in Wands states: "Enablement is not precluded by the necessity for some experimentation such as routine

screening. However, experimentation needed to practice the invention must not be undue experimentation. The key word is 'undue,' not 'experimentation.' " (Wands, 8 USPQ2d 1404). Clearly, enablement of a claimed invention cannot be predicated on the basis of quantity of experimentation required to make or use the invention. "Whether undue experimentation is needed is not a single, simple factual determination, but rather is a conclusion reached by weighing many factual considerations." (Wands, 8 USPQ2d 1404). The factors to be considered in determining whether undue experimentation is required include: (1) the quantity of experimentation necessary, (2) the amount or direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims. While all of these factors are considered, a sufficient amount for a prima facie case are discussed below.

The breadth of a claim is evaluated on the basis of the claimed invention <u>as a whole</u>.

Vas-Cath Inc. v. Mahurkar, 19USPQ2d 1111 (Fed. Cir. 1991), clearly states that "applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention is, for purposes of the written description inquiry, whatever is now claimed." Vas-Cath Inc. v. Mahurkar, 19USPQ2d at 1117. The specification does not "clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." Vas-Cath Inc. v. Mahurkar, 19USPQ2d at 1116. In the instant case the disclosure provides adequate description for the polynucleotide sequences set forth in

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SEQ ID NO: 1-6 and 9-12 and use thereof, however the specification fails to describe the other species within the genus of sequences which share 60% or 95% identity with these sequences. Examiner would agree that the synthesis of polynucleotides is routine in the art, and further, that one in the art could make a oligonucleotide sequence which is 60% or 95% to a given sequence. However, the specification fails to provide the necessary guidance to what base pairs one is allowed to change and still retain the specificity to sequences which are indicative of IgA nephropathy. For example, for 60% identity, one would be able to change every other third base pair of a given SEQ ID NO which would result in a sequence which would not even detect the sequence from which it was derived. The specification provides no guidance for sequences which are not useful in detecting the particular sequences associated with IgA nephropathy. The claimed invention as a whole is not adequately described if the claims require essential or critical elements which are not adequately described in the specification and which are not conventional in the art as of Applicants effective filing date. Possession may be shown by actual reduction to practice, clear depiction of the invention in a detailed drawing, or by describing the invention with sufficient relevant identifying characteristics (as it relates to the claimed invention as a whole) such that a person skilled in the art would recognize that the inventor had possession of the claimed invention. Pfaff v. Wells Electronics, Inc., 48 USPQ2d 1641, 1646 (1998).

In addition, the claimed embodiments of sequences which are 60% or 95% lack a written description. The specification fails to provide the necessary guidance or clearly describe the molecular structure of these sequences where one of ordinary skill in the art would be able to

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make any modification to SEQ ID NOs:1-6 and 9-12, such as a deletions, additions or mutations without empirical trial and error experiments to determine useful species enabled by the instant disclosure. The skilled artisan cannot envision all the possible modifications which one may make to the particular SEQ ID NOs, nor how a particular modification will affect the ability to use said sequence, and therefore conception is <u>not</u> achieved until reduction to practice has occurred, regardless of the complexity or simplicity of the method. Adequate written description requires more than a mere statement that it is part of the invention and reference to a potential method of isolating it. See *Fiers v. Revel*, 25 USPQ2d 1601, 1606 (Fed. Cir. 1993) and *Amgen Inc. v. Chugai Pharmaceutical Co. Ltd.*, 18 USPQ2d 1016 (Fed. Cir. 1991). One cannot describe what one has not conceived. See *Fiddes v. Baird*, 30 USPQ2d 1481, 1483. In *Fiddes*, claims directed to mammalian FGF's were found to be unpatentable due to lack of written description for that broad class. The specification provided only the bovine sequence.

Thus, in view of the lack of guidance, working examples, breadth of the claims, the level of skill in the art and state of the art at the time of the claimed invention was made, it would have required undue experimentation to make and/or use the invention as claimed, and therefore the rejection is maintained.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically:

Claim 4 is vague and incomplete because the method fails to recite a final method step that relates to detecting a particular mRNA. Further, the claim has been amended to recite 'isolating a total RNA from a sample' but it is unclear if a difference in a particular level associated with IgA nephropathy can be detected in the RNA from any cell or tissue sample besides from the leukocyte cells of a patient. In addition, the claim is indefinite in the recitation of 'hybridizing' because the conditions under which the hybridization is done are not specifically set forth. Lacking specific conditions, the particular mRNA detected in a sample will be variable and dependent on the conditions one were to use during hybridization.

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The Table below sets forth prior art that applies to the SEQ ID NOs. elected for examination and includes the positions of identity between the claimed sequence and that of the prior art.

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SEQ ID NO	Reference	Location in Reference	Location in claimed SEQ ID NO	Location in Prior art SEQ
1 4276bp	Hillier et al. (10/26/95)	GenBank Accession No. H71225	189-536	51-398
2 2689bp	Bader et al. (5/16/96)	GenBank Accession No. U23946	38-518	1-481
3 2981bp	Hettmann et al. (9/23/94)	GenBank Accession No. S71037	1352-1371	117-136
4 1461bp	Kelly et al. (4/24/93)	GenBank Accession No. X02228	650-667	14483-14500
5 3329bp	Kelly et al. (4/24/93)	GenBank Accession No. X02228	1005-1022	14483-14500
6 2276bp	Hillier et al. (4/02/96)	GenBank Accession No. N89899	95-528	1-435*
9 135bp	Hillier et al. (10/31/95)	GenBank Accession No. H73595	32-48	304-320*
10 197bp	Trick (3/23/95)	GenBank Accession No. X52089	92-109	1879-1896
11 137bp	Hudson (5/31/96)	GenBank Accession No. G24450	52-69	258-275
12 274bp	Hillier et al. (3/31/95)	GenBank Accession No. T98890	31-251	2-224

<sup>\*</sup>complementary sequence of SEQ ID subsequence

Claim 5 stands rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hillier et al. (GenBank Accession Number H71225, 10/26/95). Hillier et al. disclose a polynucleotide comprising 348 contiguous residues (nucleotides 51-398) identical to nucleotides 189-536 of SEQ ID NO:1.

Claim 5 stands rejected under 35 U.S.C. 102(b) as being clearly anticipated by Bader et al. (GenBank Accession Number U23946, 5/16/96). Bader et al. disclose a polynucleotide comprising a segment (nucleotides 1-481) 99.6% identical to nucleotides 38-518 of SEQ ID NO:2.

Claim 5 stands rejected under 35 U.S.C. 102(b) as being anticipated by Hettmann et al. (GenBank Accession Number S71037, 9/23/94). Hettmann et al. disclose a polynucleotide comprising a segment (nucleotides 117-136) identical to nucleotides 1352-1371 of SEQ ID NO:3.

Claim 5 stands rejected under 35 U.S.C. 102(b) as being anticipated by Kelly et al. (GenBank Accession Number X02228, 4/24/93). Kelly et al. disclose a polynucleotide comprising a segment (nucleotides 14483-14500) identical to nucleotides 650-667 of SEQ ID NO:4 and nucleotides 1005-1022 of SEQ ID NO:5.

Claim 5 stands rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hillier et al. (GenBank Accession Number N89899, 4/02/96). Hillier et al. disclose a polynucleotide comprising a segment (nucleotides 1-435), whose complement is 99.8% identical to nucleotides 95-528 of SEQ ID NO:6.

Claim 5 stands rejected under 35 U.S.C. 102(b) as being anticipated by Hillier et al. (GenBank Accession Number H73595, 10/31/95). Hillier et al. disclose a polynucleotide comprising a segment (nucleotides 304-320), whose complement is identical to nucleotides 32-48 of SEQ ID NO:9.

Claim 5 stands rejected under 35 U.S.C. 102(b) as being anticipated by Trick (GenBank Accession Number X52089, 3/23/95). Trick discloses a polynucleotide comprising a segment (nucleotides 1879-1896) identical to nucleotides 92-109 of SEQ ID NO:10.

Claim 5 stands rejected under 35 U.S.C. 102(b) as being anticipated by Hudson (GenBank Accession Number G24450, 5/31/96). Hudson discloses a polynucleotide comprising a segment (nucleotides 258-275) identical to nucleotides 52-69 of SEQ ID NO:11.

Claim 5 stands rejected under 35 U.S.C. 102(b) as being anticipated by Hillier et al. (GenBank Accession Number T98890, 3/31/95). Hillier et al. disclose a polynucleotide comprising a segment (nucleotides 2-224) identical to nucleotides 31-251 of SEQ ID NO:12.

The claim amendment to claim has obviated the basis of the rejection. Specifically, claim 1 now recites that the sequences share 60-95% identity to each of SEQ ID NOs:1-6, 9-12. Though % identity is not specifically defined in the instant specification, one of skill in that would interpret this to encompass a sequence which shares the recited identity over the full length of the specific SEQ ID NO. The sequences cited in the prior art comprise identical sequences which are shorter than the sequences encompassed by claim 1, therefore the rejection over claim 1 is withdrawn.

However, for claim 5, Applicants argue that each of the sequences cited as prior do to disclose that the sequences would be useful for the diagnosis of nephropathy. See Applicants amendment, top of page 9. Applicants' argument has been fully considered, but not found persuasive.

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Please note that intended use limitations bear little weight on the determination of patentability. In this case, for claim 5, the limitation of an 'IgA nephropathy diagnostic agent' does <u>not</u> carry patentable weight in the determination of anticipation for the claimed products. This is because a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See In re Casey, 152 USPQ 235 (CCPA 1967) and In re Otto, 136 USPQ 458, 459 (CCPA 1963). In the instant case, Applicants' arguments are directed to the intended use of the claimed product to patentably distinguish the claimed invention from the prior art however, the sequences set forth in basis of the rejection as taught in cited references meet the limitation set forth in claim 5. Thus, because the sequences meet the structural limitations of the claim, they could be used for any intended use limitation set forth in the claim. Therefore, because the sequences in the art anticipate the sequences encompassed by claim 5, the rejection is maintained.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 18 and 19 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hillier et al. (GenBank Accession Number H71225, 10/26/95), Bader et al. (GenBank Accession Number U23946, 5/16/96), Hettmann et al. (GenBank Accession Number S71037, 9/23/94), Kelly et al. (GenBank Accession Number X02228, 4/24/93), Hillier et al. (GenBank Accession Number N89899, 4/02/96), Hillier et al. (GenBank Accession Number H73595, 10/31/95), Trick (GenBank Accession Number X52089, 3/23/95), Hudson (GenBank Accession Number G24450, 5/31/96), Hillier (GenBank Accession Number T98890, 3/31/95) is withdrawn.

The sequences set forth in the basis of the rejection no longer meet the limitations set forth in claim 1. Specifically, each of the sequences cited in the prior art comprise sequences which are shorter than the sequences encompassed by claim 1.

## Conclusion

No claim is allowed. Claims 1, 4, 18, 19 and 22 are free of the art of record because the art fails to teach polynucleotide sequences encompassed by the instant claims. Further, the art fails to teach that these polynucleotide sequences correlate to genes which demonstrate an

increased expression in the leukocytes of patients suffering from IgA nephropathy, however the

claims are subject to other rejections.

Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Joseph Woitach whose telephone number is (703)305-3732.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Deborah Reynolds, can be reached at (703)305-4051.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist Patsy Zimmerman whose telephone number is (703)308-8338.

Papers related to this application may be submitted by facsimile transmission. Papers should be faxed via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center numbers are (703)308-4242 and (703)305-3014.

Joseph T. Woitach

DEBORAH CROUCH PRIMARY EXAMINER GROUP 1800 /630

Devoral Crench